a) exposing the plant or plant part to a solvent under conditions sufficient to solubilize materials in the cuticular and epicuticular layers of the plant, while leaving cells and tissues internal to the epidermis substantially unaffected; and

b) obtaining a solution or suspension of plant cuticular and epicuticular materials, thereby producing the antiviral preparation, wherein the plant or plant part is selected from the group consisting of *Malus*, *Pyrus*, *Citrus*, *Lycopersicon*, *Brassica*, *Cucumis*, *Prunus*, *Persea*, *Vaccinium*, *Arctostaphylos*, *Olea*, *Nicotianum*, *Quercus*, *Eucalyptus*, *Rhododendron*, *Ilex*, *Eriobotrya*, *Salix*, *Copernicia*, *Euphorbia*, *Pedilanthus*, *Syagrus*, *Cocos*, *Attalea*, *Stipa*, *Glyceria*, *Saccharum*, *Myrica*, *Rhus*, *Sapium*, *Ceroxylon*, *Linum*, *Agave*, *Cannabis*, *Raphia*, *Coccus*, *Ligustrum*, *Fraxinus*, *Benincasa*, *Ricinus*, *Buxus*, *Mesembryanthemum*, *Rubus* and *Melaleuca*.

37. (Amended) The method of claim 5 wherein the plant or plant part is exposed to a solvent from about three minutes to about five minutes.

Please cancel claims 24 and 36, without prejudice.

## REMARKS

### I. Preliminary Remarks

Claims 5-39 were pending in the instant application, and stand variously rejected under 35 U.S.C. §112, first and second paragraphs, 35 U.S.C. §102, and/or 35 U.S.C. §103. Claims 24 and 36 are being cancelled by the foregoing amendments. Accordingly, claims 5-10, 19-23, 25-35, and 37-39 will be pending upon entry of the instant amendments.[1] The amendments are each supported throughout the application as filed and, thus, do not include new matter.

Attached hereto, as Appendix A, is a marked-up version of the amendments presented herein, in accordance with the requirements of 37 C.F.R. §1.121. Applicants do not intend by these amendments to abandon the scope of any

[1] In view of the cancellation of claim 36, claim 37 has been amended to depend directly from claim 5.

claim as originally filed or later presented, and reserve the right to pursue such claims in continuing applications. In addition, for the Examiner's convenience, a complete set of claims pending upon entry of the instant amendments is attached as Appendix B.

The various bases for the claim rejections will be addressed below in the order raised in the Office Action. Applicants submit that the amendments and remarks presented herein overcome the outstanding rejections, and place the instant application in condition for allowance. An indication of such favorable action is solicited.

Finally, Applicants note that claim 5 of the version of Exhibit B that was attached to the response to the Office Action dated August 22, 2001 contained additional limitations over the originally filed claim, and these limitations were not introduced via amendment in the response filed on December 21, 2001. Accordingly, Applicants respectfully request that the Examiner consider claim 5 as presented herein.

## II. The Rejection of Claims 5, 36, and 38 under 35 U.S.C. §112, Second Paragraph, For Indefiniteness, Should Be Withdrawn

Claim 5 has been amended to correct an asserted antecedent basis problem. It is respectfully submitted that the asserted lack of antecedent basis did not render the claim indefinite under §112, because a claim is considered definite as long as "the scope of the claims is clear so the public is informed of the boundaries of what constitutes infringement of the patent." *See* M.P.E.P. § 2173. Nevertheless, in view of the amendment presented herein, the rejection of claim 5 for indefiniteness should be withdrawn.

Claim 36 has been cancelled. Accordingly, the rejection of claim 36 for indefiniteness has been rendered moot and should be withdrawn.

With respect to claim 38, Applicants maintain that the phrase "room temperature" is a well-known term of art and is a clear indication of a particular temperature range. Furthermore, *The American Heritage® Dictionary of the English Language*, Fourth Edition (2000), defines room temperature to be an indoor

temperature of from 20 to 25°C (68 to 77°F).[2] For the foregoing reasons, it is respectfully submitted that the rejection of claim 38 for indefiniteness should be withdrawn.

**III. The Rejection of Claims 5-10, 19-24, and 32-39 under 35 U.S.C. §112, First Paragraph, For Lack of Enablement, Should Be Withdrawn**

Claims 5-10, 19-24, and 32-39 were rejected under 35 U.S.C. §112, first paragraph, for lack of enablement commensurate in scope with the claims. While acknowledging that the specification is "enabling for a method for extracting the crude epicuticular layer of a plant via exposure to a solvent (and the corresponding crude product obtained therefrom), wherein said exposure does not cause damage to layers under the epidermal layer of the plant," the Examiner asserted that the specification "does not reasonably provide enablement for an antiviral substance prepared therefrom." *See* Office Action at page 3. Further, the Examiner contends that Applicants "have not clearly disclosed which part of which plant actually provides for anti-viral activity," and that "[t]he Specification is not enabled for a protocol for the extraction of any plant/plant part to obtain an antiviral product." *See* Office Action at pages 4-6. Finally, the Examiner stated that "the Specification is not enabled for *in-vivo* efficacy." *See* Office Action at page 6. Applicants respectfully traverse the rejection.

In the present case, the enablement inquiry properly focuses on whether the application reasonably taught one of skill in the art to make preparations possessing antiviral activity from the cuticular and epicuticular layers of a plant or plant part, wherein the plant or plant part is selected from the group set forth in claim 5. Applicants have demonstrated how to make such preparations possessing antiviral activity by exposing a specified plant or plant part to a solvent under conditions sufficient to solubilize materials in the cuticular and epicuticular layers of the plant, while leaving cells and tissues internal to the epidermis substantially unaffected. The application teaches how to prepare antiviral preparations in accordance with the claims and how to evaluate the antiviral activity of the claimed antiviral preparations.

---

[2] A copy of this definition is presented in Appendix C.

Given this level of instruction concerning the practice of the claimed invention, the application as filed provides sufficient guidance to enable the claimed subject matter. Furthermore, the Examiner has recognized the antiviral efficacy of preparations prepared in accordance with the disclosed methods, *e.g.*, by stating "the Specification has shown some positive result with regard to *in-vitro* HSV-1 and HIV-1 cytoprotection." *See* Office Action at page 6.

Nonetheless, the Examiner has maintained that "the method, as instantly claimed is not enabled for every plant/part, as it is unpredictable, especially taking into consideration the myriad of plants which are known in the art to ascertain what, if any plants contain anti-viral substances within the cuticular layers." *See* Office Action at page 6. It is respectfully submitted that this aspect of the enablement rejection has been overcome because claim 5, as amended, now recites a specific group of plants and plant parts which, in whole or part, provide sources of the claimed antiviral preparations.

Moreover, Applicants are confused by the Examiner's assertion that the plant parts that actually provide anti-viral activity are not clearly disclosed. The specification specifically identifies exemplary plant parts such as fruits, flowers, leaves, roots, stems, and bark, that contain anti-viral substances in their cuticular and epicuticular layers. *See* application at page 8, lines 23-29. The Examiner has not provided data or scientific reasoning to rebut Applicants' statements. Rather, the Examiner speculates that it "is entirely possible" that "different parts of the plant . . . could contain different defense agents." *See* Office action at page 5. Unsubstantiated possibilities do not provide a reasonable scientific basis for questioning Applicant's statements. Thus, the Examiner has not established a *prima facie* case of non-enablement.

Further, it is respectfully submitted that this aspect of the enablement rejection has also been overcome because the antiviral preparations are derived from the cuticular and epicuticular layers of a plant or plant part, not a plant or plant part *per se*. It is Applicants' discovery of anti-viral compounds in the cuticular and epicuticular layers of a wide variety of plants and plant parts, as disclosed in the

application-as-filed, that led to Applicants' invention. Thus, Applicants have disclosed that the antiviral compounds are found in (1) the cuticular and/or epicuticular layers of a (2) variety of plants, and (3) parts thereof. Any remaining experimentation would be minimal and, more importantly, routine. Thus, the facts of this case do not provide a basis for concluding that undue experimentation would be required to practice the full scope of the invention.

As previously set forth, the Examiner alleged that the specification was not enabled for *in vivo* methods. However, Applicants are not claiming a method of treating a subject with the antiviral preparations. Rather, Applicants are claiming a method of producing an antiviral preparation and antiviral preparations produced thereby. Further, Applicants have demonstrated that the claimed preparations exhibit antiviral activity, as recognized by the Examiner. (For example, *see* application at Tables 1 & 2, and Figures 1 & 2.) It is respectfully submitted that this ground for rejecting the claims as non-enabled has been overcome.

Consideration of the *Wands* factors, useful in assessing enablement, also supports Applicants' assertion that the application enables the full scope of the claimed methods. With respect to the quantity of experimentation required, the Examiner indicated that "a substantial inventive contribution on the part of a practitioner which would involve tedious trial and error protocols" would be required to "ascertain exactly what plant part exhibited *in-vitro* antiviral activity." *See* Office Action at page 7. However, Applicants respectfully submit that any experimentation needed to practice the claimed invention would amount to routine screening in view of the amount of guidance provided in the present disclosure.

Furthermore, Applicants have disclosed several working examples which provide additional guidance for practicing the claimed invention. For example, *see* application at Tables 1 & 2, and Figures 1 & 2. With respect to the state of the art, Applicants submit that the art of screening solutions for antiviral activity had developed to such an extent that screening methods *per se* were routine as of the effective filing date. A related factor, the skill in the art, also favors a finding that the application enabled the full scope of the claimed subject matter insofar as the skill

level in the biotechnology arts is relatively high, as noted by the Federal Circuit in *Wands*. *Wands*, 858 F.2d at 740.

Finally, Applicants respectfully submit that the pending claims are not overly broad in scope. Applicants discovered that antiviral preparations may be prepared from the cuticular and epicuticular layers of specific plants and plant parts, thereby allowing for the production of antiviral preparations. This is precisely the subject matter that has been claimed. Applicants should not have their claims limited to the preferred embodiments disclosed in the application. For these reasons, the rejection of claims 5-10, 19-24, and 32-39 under 35 U.S.C. § 112, first paragraph, for lack of enablement, should be withdrawn.

## IV. The Rejection of Claims 25-31 under 35 U.S.C. §112, First Paragraph, For Lack of Enablement, Should Be Withdrawn

The Examiner also stated that "claims 25-31 which are drawn to specific viruses which may be treated with the product obtained from the epicuticular layer are not enabled because Applicants have not clearly taught how to make such a product . . . ." *See* Office Action at page 7.

In rejecting claims 25-31, the Examiner acknowledged that the Applicants have "found a substance which provides for some *in-vitro* antiviral activity." *See* Official Action at page 7. However, the Examiner has apparently objected to claims 25-31 because "it is not known what this substance is or exactly how to obtain it." *See* Official Action at page 7.

Applicants respectfully submit that the claims, as amended, recite specific plants, thereby identifying specific plants from which antiviral preparations containing antiviral compounds may be prepared. Moreover, as set forth above in Section III, Applicants disclose specific plant parts which contain antiviral activity. Accordingly, Applicants have disclosed how to make and use the claimed invention, in accordance with 35 U.S.C. § 112, ¶1, as set forth in Section III, above.

Applicants further submit that the Examiner is focusing solely on the data set forth in the application, and that this focus is improper. Applicants need not exemplify every embodiment of the invention. Moreover, the identity of the antiviral

substance(s) is (are) immaterial to the claimed invention, *i.e.*, Applicants need not know, or disclose, the identity of the antiviral compounds.

In view of the discussion presented directly above (and in Section III), Applicants respectfully submit that they have disclosed how to make and use such a product. For the above reasons, the rejection of claims 25-31 for lack of enablement should be withdrawn.

## V. The Rejection of Claims 5-7, 10, 19-23, 32, and 36-37 under 35 U.S.C. §102(b) as being Anticipated by Lajide Should Be Withdrawn

Claims 5-7, 10, 19-23, 32, and 36-37 were rejected under 35 U.S.C. §102(b) as allegedly being anticipated by Lajide *et al.*, Experientia 52: 259-263 (1996)(hereinafter "Lajide"). Applicants respectfully traverse.

It is well-established that each and every limitation of a claimed invention must be present in a single prior art reference in order for anticipation to occur. *See*, for example, *C.R. Bard, Inc. v M3 Systems, Inc.*, 157 F.3d 1340, 1349 (Fed. Cir. 1998). The standard is one of strict identity. This standard has not been satisfied for the reasons set forth below.

Lajide discloses that a cyclohexadienone is "the major bioactive foliar surface compound in *S. cannabifolius*," and that "the methyl ester isomer found in leaf tissue" also possesses insecticidal activity. *See* Lajide at page 259. Lajide does not disclose or suggest that *S. cannabifolius* has an anti-viral compound or activity, which is distinct from the disclosed anti-insecticidal activity. Consequently, Lajide cannot, and does not, disclose (or even suggest) a method for producing an antiviral preparation from the epicuticular or cuticular layers of a plant or plant part. Accordingly, Applicants respectfully submit that Lajide fails to disclose, suggest, or appreciate a method for producing a preparation possessing antiviral activity comprising substances obtained from cuticular or epicuticular layers of a plant or plant part. Lajide, therefore, does not anticipate the claimed methods.

The Examiner appears to be relying on the doctrine of inherency because Lajide does not disclose antiviral activity. However, "[t]o establish inherency, the extrinsic evidence 'must make clear that the missing descriptive matter

is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill. Inherency, however, may not be established by probabilities or possibilities." *In re Robertson*, 169 F.3d 743, 745 (Fed. Cir. 1999); *see also* M.P.E.P. § 2112.

Applicants have never stated that every plant has antiviral activity, nor has the Examiner cited any teaching to establish the inherent presence of an antiviral substance in the plant extracts disclosed by Lajide. Accordingly, the Examiner may not rely on the doctrine of inherency in order to establish the presence of antiviral compounds in the extracts analyzed by Lajide.

Furthermore, neither *S. cannabifolius* nor the other plants disclosed by Lajide are members of the Markush group set forth in claim 5. Because each and every limitation of the claimed invention is not present in Lajide, the rejection of claims 5-7, 10, 19-23, 32, and 36-37 under 35 U.S.C. § 102(b) should be withdrawn.

## VI. The Rejection of Claims 5-9, 10, 19, 21, 24, 32-33, 36-37, and 39 under 35 U.S.C. §102(b) as being Anticipated by Nordby Should Be Withdrawn

Claims 5-9, 10, 19, 21, 24, 32-33, 36-37, and 39 were rejected under 35 U.S.C. §102(b) as allegedly being anticipated by Nordby *et al.*, J. Agric. Food Chem. 39: 957-962 (1991) (hereinafter "Nordby"). Applicants respectfully traverse.

As previously set forth, it is well-established that each and every limitation of a claimed invention must be present in a single prior art reference in order for anticipation to be found. The standard for anticipation is one of strict identity. This standard has not been satisfied.

Nordby discloses an analysis of a grapefruit epicuticular wax composition, and the changes in that composition induced by cold storage of the fruit, which may lead to a "chilling injury." More specifically, Nordby discloses that 35-46% of $C_{28}$-$C_{34}$ aldehydes in grapefruit wax are lost when the fruit is stored for 7 days, and that the deterioration in the fruit's natural barrier (caused by the loss of the $C_{28}$-$C_{34}$ aldehydes) can be ameliorated by the synthesis of "good aldehydes." *See* Nordby at pages 957, and 961-962.

Nordby does not disclose or suggest a method for producing any type of preparation from the epicuticular or cuticular layers of a plant or plant part, including the complete failure to disclose or suggest an anti-viral preparation as recited in the pending claims. Accordingly, Applicants respectfully submit that Nordby fails to disclose, suggest, or appreciate a method for producing a preparation possessing antiviral activity comprising substances obtained from cuticular or epicuticular layers of a plant or plant part. Because each and every limitation of the claimed invention is not present in Nordby, the reference does not anticipate the subject matter of any pending claim and the rejection of claims 5-7, 10, 19-23, 32, and 36-37 under 35 U.S.C. 102(b) should be withdrawn.

Further, as set forth in the above discussion regarding Lajide, the Examiner appears to be relying on the doctrine of inherency because Nordby does not disclose antiviral activity. However, "[t]o establish inherency, the extrinsic evidence 'must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill." *In re Robertson*, 169 F.3d 743, 745 (Fed. Cir. 1999).

Applicants, however, have never stated that every plant has antiviral activity, nor has the Examiner cited any teaching to establish the inherent presence of an antiviral substance in the plant extracts disclosed by Nordby. Accordingly, for reasons similar to those set forth above, the Examiner may not rely on the doctrine of inherency to establish the presence of antiviral compounds in the extracts analyzed by Nordby.

## VII. The Rejection of Claims 5-10, 19-24, and 32-39 under 35 U.S.C. §103(a) For Nonobviousness over Lajide or Nordby Should Be Withdrawn

Claims 5-10, 19-24, and 32-39 were rejected as being unpatentable over Lajide or Nordby. Applicants respectfully traverse.

Applicants respectfully submit that Lajide and Nordby fail to disclose, suggest, or appreciate, a method for producing a preparation possessing antiviral activity comprising substances obtained from cuticular or epicuticular layers of a plant or plant part. At best, Lajide discloses that compounds found in the dewaxed

leaf surface extracts of a specific plant possess insecticidal properties. Similarly, Nordby simply discloses that an increase in concentration of compounds that are naturally present in the epicuticular layer of grapefruit protects the fruit from chilling injury. There is simply no disclosure present in either of these references that relates to antiviral properties. Moreover, reliance on the doctrine of inherency is improper under 35 U.S.C. § 103(a) because obviousness is assessed from the perspective of one of ordinary skill in the art, who must necessarily be aware of the disclosed subject matter. "Obviousness cannot be predicated on what is not known at the time an invention is made, even if the inherency of a certain feature is later established." *In re Rijckaert*, 9 F.2d 1531 (Fed. Cir. 1993); *see also* M.P.E.P. § 2141.02. In addition, there is no basis for invoking the doctrine of inherency because Applicants have not stated, or claimed, every plant or plant part as an anti-viral source. Accordingly, the obviousness rejection of claims 5-10, 19-24, and 32-39 over Lajide or Nordby fails, and should be withdrawn.

Beyond the preceding dispositive observations, Applicants note that Lajide teaches away from the claimed invention. Lajide discloses "dewaxed" leaf surface extracts, which are prepared from samples of fresh foliage, *i.e.*, the solutions disclosed by Lajide are vacuum filtered to remove the extracted plant waxes. In contrast, the application discloses that "[t]he antiviral properties of these materials likely arises from one or more constituents . . . of plant cuticular and epicuticular materials, such as waxes, plant wax components . . . . " *See* application at page 8, lines 18-20. "A prior art reference must be considered in its entirety, i.e., as a whole, including portions that would lead away from the claimed invention." *See* M.P.E.P. § 2141.02. For this additional reason, it is respectfully submitted that the rejection of claims 5-10, 19-24, and 32-39 as being obvious over Lajide should be withdrawn.

**VIII. Conclusion**

For the foregoing reasons, Applicants submit that the claims as amended herein are in condition for allowance and early notice thereof is respectfully solicited. The Examiner is invited to contact the undersigned representative with any questions, comments, or suggestions relating to the above-referenced patent application.

Respectfully submitted,

MARSHALL, GERSTEIN & BORUN

September 6, 2002

By: Andrew M. Lawrence

Andrew M. Lawrence, Reg. No. 46,130
6300 Sears Tower
233 South Wacker Drive
Chicago, Illinois 60606-6357
(312) 474-6300

## APPENDIX A

## VERSION WITH MARKINGS TO SHOW CHANGES MADE

5. (Twice Amended) A method for producing a preparation possessing antiviral activity comprising substances obtained from cuticular or epicuticular layers external to an epidermis of a plant or plant part, the method comprising:

a) exposing the plant or plant part to a solvent under conditions sufficient to solubilize materials in the cuticular and epicuticular layers of the plant, while leaving cells and tissues internal to the epidermis substantially unaffected; and

b) obtaining a solution or suspension of plant cuticular and epicuticular materials, thereby producing the antiviral preparation, wherein the plant or plant part is selected from the group consisting of *Malus*, *Pyrus*, *Citrus*, *Lycopersicon*, *Brassica*, *Cucumis*, *Prunus*, *Persea*, *Vaccinium*, *Arctostaphylos*, *Olea*, *Nicotianum*, *Quercus*, *Eucalyptus*, *Rhododendron*, *Ilex*, *Eriobotrya*, *Salix*, *Copernicia*, *Euphorbia*, *Pedilanthus*, *Syagrus*, *Cocos*, *Attalea*, *Stipa*, *Glyceria*, *Saccharum*, *Myrica*, *Rhus*, *Sapium*, *Ceroxylon*, *Linum*, *Agave*, *Cannabis*, *Raphia*, *Coccus*, *Ligustrum*, *Fraxinus*, *Benincasa*, *Ricinus*, *Buxus*, *Mesembryanthemum*, *Rubus* and *Melaleuca*.

37. (Amended) The method of claim ~~36~~ 5 wherein the plant or plant part is exposed to a solvent from about three minutes to about five minutes.

## APPENDIX B

## CLEAN COPY OF ALL PENDING CLAIMS UPON ENTRY OF INSTANT AMENDMENT

5. (Twice Amended) A method for producing a preparation possessing antiviral activity comprising substances obtained from cuticular or epicuticular layers external to an epidermis of a plant or plant part, the method comprising:

a) exposing the plant or plant part to a solvent under conditions sufficient to solubilize materials in the cuticular and epicuticular layers of the plant, while leaving cells and tissues internal to the epidermis substantially unaffected; and

b) obtaining a solution or suspension of plant cuticular and epicuticular materials, thereby producing the antiviral preparation, wherein the plant or plant part is selected from the group consisting of *Malus*, *Pyrus*, *Citrus*, *Lycopersicon*, *Brassica*, *Cucumis*, *Prunus*, *Persea*, *Vaccinium*, *Arctostaphylos*, *Olea*, *Nicotianum*, *Quercus*, *Eucalyptus*, *Rhododendron*, *Ilex*, *Eriobotrya*, *Salix*, *Copernicia*, *Euphorbia*, *Pedilanthus*, *Syagrus*, *Cocos*, *Attalea*, *Stipa*, *Glyceria*, *Saccharum*, *Myrica*, *Rhus*, *Sapium*, *Ceroxylon*, *Linum*, *Agave*, *Cannabis*, *Raphia*, *Coccus*, *Ligustrum*, *Fraxinus*, *Benincasa*, *Ricinus*, *Buxus*, *Mesembryanthemum*, *Rubus* and *Melaleuca*.

6. The method of claim 5 wherein the solvent comprises one or more ingredients selected from the group consisting of hexane, chloroform, dichloromethane, heptane, ether, petrolether, t-butyl ether, DMSO, supercritical fluids and carbon dioxide.

7. The method of claim 5 wherein the step of exposing comprises dipping the plant or plant part into the solvent.

8. The method of claim 5 wherein the step of exposing comprises spraying the plant or plant part with the solvent.

9. The method of claim 19 wherein the removal of the solvent is performed by a method selected from the group consisting of aspiration, static evaporation, heating, centrifugal evaporation, rotary evaporation, vortex evaporation, lyophilization, liquid-liquid separation, solid-liquid separation and precipitation.

10. An antiviral preparation prepared by the method of claim 5.

19. The method according to claim 5 further comprising removing the solvent.

20. The method according to claim 19 further comprising redissolving the antiviral preparation in a biologically compatible medium.

21. The method according to claim 5 further comprising clarifying the solution or suspension of plant cuticular and epicuticular materials.

22. The method according to claim 5 further comprising formulating the antiviral preparation into a pharmaceutical composition.

23. The method according to claim 5 further comprising formulating the antiviral preparation into a nutraceutical composition.

25. The method according to claim 5 wherein the antiviral activity is selected from the group consisting of an anti-human immunodeficiency virus activity, an anti-herpesvirus activity, an anti-influenza virus activity, an anti-rhinovirus activity, an anti-poliovirus activity, an anti-hepadnavirus activity, an anti-cytomegalovirus activity, an anti-measles virus activity, an anti-parainfluenza virus activity, an anti-vesicular stomatitis virus activity, an anti-vaccinia virus activity, an anti-encephalitis virus activity and an anti-African Swine Fever virus activity.

26. The method according to claim 5 wherein the anti-herpesvirus activity is anti-HSV activity.

27. The method according to claim 26 wherein the plant or plant part is selected from the group consisting of *Malus, Pyrus, Citrus, Lycopersicon, Prunus, Eriobotrya, Copernicia, Ceroxylon* and *Persea.*

28. The method according to claim 5 wherein the antiviral activity is anti-HIV activity.

29. The method according to claim 28 wherein the plant or plant part is selected from the group consisting of *Prunus, Eriobotrya, Copernicia, Ceroxylon* and *Salix.*

30. The method according to claim 5 wherein the antiviral activity is anti-influenza activity.

31. The method according to claim 30 wherein the plant or plant part is selected from the group consisting of *Malus, Lycopersicon, Brassica* and *Persea*.

32. The method according to claim 5 wherein the plant or plant part is an agricultural or horticultural plant.

33. The method according to claim 32 wherein the agricultural or horticultural plant is selected from the group consisting of *Malus, Pyrus, Citrus, Lycopersicon, Brassica, Persea, Copernicia, Ceroxylon*, and *Eriobotrya*.

34. The method of claim 5 wherein the plant or plant part is *Malus*.

35. The method of claim 5 wherein the plant or plant part is *Lycopersicon*

37. (Amended) The method of claim 5 wherein the plant or plant part is exposed to a solvent from about three minutes to about five minutes.

38. The method of claim 37 wherein the plant or plant part is exposed to a room temperature solvent.

39. The method of claim 5 wherein the plant or plant part is fruit peel.